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| 09/987,361 | 11/14/2001 | Sadato Akahori | Q67246 | 6936 |

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| EXAMINER | |
|---|---|
| UPRETI, ASHUTOSH | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2623 | |

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/987,361 | AKAHORI, SADATO | |
| | Examiner | Art Unit | |
| | Ashutosh Upreti | 2623 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-3,5-13 and 15-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5-13 and 15-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03/28/05* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

Applicant's amendment filed March 28, 2005, has been entered and made of record.

In view of Applicant's amendments to the drawings, the objection to Figures 2, 4, and 5 is withdrawn. The examiner still objects to Figure 7, as there remains one instance of the word "information" misspelled as "information" (see element S23).

Applicant's arguments filed 03/28/05 have been fully considered but they are not persuasive.

Claims 1 and 11:

On page 10, the applicant argues that Muller does not disclose automatically selecting photographing information from a database, as stated in the amended claims 1 and 11. Muller does disclose this in Column 5, lines 33-37. Here the angle of the arm is automatically read by electronic means and then using prerecorded data (considered to be in a database), information relative to the types of views is derived.

The applicant states that by defining the term "attendant information", the claims are distinguished over Muller. The examiner disagrees as Muller the attendant information cited form Muller fits the definition added to the claims.

On page 11, the applicant claims that the phrase "Positioner Rotation" in Nields is in a fixed location. This is incorrect, see Figure 17, where the same information appears in the lower box of text instead of the upper box.

The applicant argues that apart from the two images, the display appears to be in a fixed location. This feature is not presented in the claims and the argument is therefore irrelevant.

The applicant argues that the needle is the only positional item in the display and that the positioner rotation value is referring to the needle and not the ultrasound device. This is incorrect as the ultrasound image itself may in fact be taken from different positions and this information is displayed (column 18, lines 37-39). The positioner rotation value is actually referring to the ultrasound device (column 18, lines 39-41). This part of Nields is clearly referring to photographing information as is claimed.

The applicant states that Nields does not teach that a character similar to conventional character markers may be positioned or have its size changed. Regarding conventional character markers, this feature is not claimed. While the Nields may not specifically discuss changing size or determining position when displaying the photographing information, these are well known in the art (see the rejections below, where the examiner takes official notice regarding these limitations).

The applicant states that the photographing information is not added to the image data or attendant data. This is incorrect, as in this case all the information is being displayed on the screen at the same time and is clearly grouped (added) together in some way as otherwise, information for different images, patients and angles would all get mixed up and render the system useless.

In regard to the applicants statement that photographing information is not shown as defined in the applicant's specification, the definition is not claimed, so the term photographing information will be read as broadly as is claimed.

Regarding applicants arguments relating to image of the needle (on page 13), see above for evidence that the photographing information cited by the examiner is not referring to the needle.

Claims 3 and 13:

On page 13, the applicant states that plural kinds of photographing information, as defined, are not cited. The applicant has also amended the claim to state that the selection must be automatic. The examiner notes that the definition mentioned has not been claimed. On this basis, the examiner reads "one kind of photographing information" broadly. The reference is considered to disclose automatically selecting one kind of photographing information (column 6, lines 5-8). Here, the system automatically selects whether to give information relating to AT or S type (considered two different kinds of photographing information) depending on detection means which are related to photographing condition.

Claims 7 and 17:

On page 14, the applicant argues that just because photographing condition is displayed, it does not necessarily have to be in the form of data. The examiner disagrees as, if something is displayed on a screen, it is inherent that it must be in the

form of data. The applicant also argues that the table in column 6 of Muller does not represent a lookup memory. The examiner notes that in the given context (column 5, lines 33-38) the use of a lookup memory is implied. In addition, the examiner notes that a lookup memory itself is not actually claimed. The applicant argues in relation to user input, this however is not claimed.

Claims 9 and 19:

The applicant argues that Muller does not precisely teach "conventional" notation being added to image attendant information. This limitation, while possibly in the specification, is not claimed.

Claims 10 and 20:

The applicant's argument that Muller does not disclose changing photographing information data is incorrect. See column 6, lines 34-37.

Claims 8 and 18:

The applicant argues that there is no basis for combining Kaneko with Muller or with Nields. The applicant is reminded that Kaneko is combined with the combination of Muller and Nields. The examiner disagrees with the applicant and thinks Kaneko is combinable with the combination of Nields and Muller for the reasons given in the original rejections of claims 8 and 18.

### *Drawings*

New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because Figure 7 contains the word information misspelled as "information" in element S23. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### *Claim Objections*

Claim 3 is objected to because of the following informalities: In claim 3, at line 3, page 3 of the instant amendment, the word "to" is misspelled. Appropriate correction is required.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 9-17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muller (U.S. Patent 6,687,331) in view of Nields (U.S. Patent 6,459,925).

As to claim 1, Muller discloses obtaining image data representing an image recorded by radiography (column 3, line 1, here an x-ray image is converted into an electronic signal i.e. it is represented as data) and image attendant information which is attendant upon the image data and includes information with respect to photographing condition of the image recorded by radiography (see the table in column 6).

Muller also discloses obtaining photographing information data, which has been generated on the basis of the photographing conditions (column 5, line 33-35) to be displayed on a screen (column 5, lines 37-38).

Muller also discloses automatically selecting photographing information data representing photographing information to be displayed on a screen from a database on the basis of the information with respect to photographing condition of the image recording by radiography (Column 5, lines 33-37. Here the angle of the arm is automatically read by electronic means and then using prerecorded data, considered to be in a database, information relative to the types of views is derived) to the image data (column 5, lines 37-38).

Muller also discloses adding of photographing information to the image attendant information (see the table in column 6). Here angles and position of the photographing condition are included in the image attendant information. Since the data is displayed (column 6, lines 35-37) it is clear that the data must be being output.

Muller does not expressly disclose selectively determining the size and position on screen for the photographing information to be displayed.

Nields discloses determining size and position on screen for the photographing information to be displayed (Figure 18). Here the "positioner rotation" is displayed on the screen. Since it is being displayed, it is inherent that the position and size for the display has been taken into account.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to combine the information display of Nields with the image processing of Muller as they both deal with x-ray image processing.

One of ordinary skill in the art would have been motivated to do this to improve the amount of useful information received by the end user of the x-ray images.

While the Nields may not specifically discuss changing size or determining position when displaying the photographing information, as the applicant claims in the newly amended claim (by using the word selectively), the examiner takes official notice that these are well known in the art.

It would have been obvious to a person of ordinary skill in the art to selectively determine position and size of characters displayed on a screen, as it is commonly done in many graphical user interface computer programs. Doing so allows a user to customize a display to suit their information needs and aesthetic taste, thus providing motivation.

As to claim 2, the limitations of the claims are rejected for the same reasons as claim 1.

As to claim 3, Muller as applied above further discloses automatically selecting one kind of photographing information data from plural kinds of photographing information data stored in said database on the basis of the information with respect to photographing condition (column 6, lines 5-8). Here, the system automatically selects whether to give information relating to AT or S type (considered two different kinds of photographing information) depending on detection means which are related to photographing condition.

As to claim 5, the examiner takes official notice that using an image reader to read radiographic images is well known in the art. It would have been obvious to a person of ordinary skill in the art to use an image reader to read radiographic images as it is commonly done to digitize image information. Doing so, would mean a system could provide both hardcopy x-ray film images and also process the images by computer, allowing useful additional data to be added to the images, thus providing motivation. All other limitations are rejected for the same reasons as in the rejection of claim 1.

As to claim 6, Muller as applied above further discloses attendant information including enlargement (size) (column 4, line 36) and rotation (column 4, line 3) of the image.

As to claim 7, Muller as applied above further discloses converting a plurality of characters (column 6, table) of photographing condition information into image data and photographing information data (column 5, lines 33-38). Here the angle information is disclosed as represented by data and displayed as an image on a screen. In addition, it is inherent that if the photographing condition is displayed as image data then it must already be in the form of photographing information data. All other limitations are rejected for the same reasons as in the rejection of claim 1.

As to claim 9, the limitations of the claims are rejected for the same reasons as claim 1.

As to claims 10, Muller as applied above further discloses changing the photographing information data (here angular limits) obtained (column 4, lines 51-53 and column 6, lines 34-37).

As to claim 11, it is an apparatus corresponding to the method of claim 1 and the limitations are therefore rejected for the same reasons as in claim 1.

As to claim 12, it is an apparatus corresponding to the method of claim 2 and the limitations are therefore rejected for the same reasons as in claim 2.

As to claim 13, it is an apparatus corresponding to the method of claim 3 and the limitations are therefore rejected for the same reasons as in claim 3.

As to claim 15, it is an apparatus corresponding to the method of claim 5 and the limitations are therefore rejected for the same reasons as in claim 5.

As to claim 16, it is an apparatus corresponding to the method of claim 6 and the limitations are therefore rejected for the same reasons as in claim 6.

As to claim 17, it is an apparatus corresponding to the method of claim 7 and the limitations are therefore rejected for the same reasons as in claim 7.

As to claim 19, it is an apparatus corresponding to the method of claim 9 and the limitations are therefore rejected for the same reasons as in claim 9.

As to claim 20, it is an apparatus corresponding to the method of claim 10 and the limitations are therefore rejected for the same reasons as in claim 10.

Claims 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Muller and Nields as applied to claims 1 and 11 above, and further in view of Kaneko (U.S. Patent 4,783,832).

As to claim 8, Nields as applied above discloses taking size and position into account when displaying photographing information data (see claim 1 rejection).

The combination of Muller and Nields does not expressly disclose superposing the photographing information data into the image data.

Kaneko discloses superimposing character data on image data (column 2, lines 21-22). This is directly applicable as photographing information is often in the form of characters.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use the superimposing of Kaneko with the combination of Muller and Nields as Kaneko is intended for use with x-ray image data (Kaneko, column 2, line 1).

One of ordinary skill in the art would have been motivated to do this to as displaying photographing information with its relevant image would make it easier for the end user of the image to accurately get more information out of one image.

As to claim 18, it is an apparatus corresponding to the method of claim 8 and the limitations are therefore rejected for the same reasons as in claim 8.

## *Conclusion*

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashutosh Upreti whose telephone number is (571) 272-7428. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on (571) 272-7414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A.U.

AU
June 24, 2005

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